#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 70.28

### WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-002305 Address: 333 Burma Road **Date Inspected:** 25-Dec-2007

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 830 **OSM Departure Time:** 2000 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Japan Steel Works **Location:** Muraran, Japan

**CWI Name:** Kenji Takemi / Samfort Kuan **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** test plate

#### **Summary of Items Observed:**

Witness Procedure Qualification Record (PQR) qualification test:

Caltrans Quality Assurance Inspector (QAI) representative Mr. Wai Pau, travel to Japan Steel Works (JSW) Muroran plant to witness an AWS D1.5 standard PQR qualification welding test. The Japan Steel Work (JSW) Mr. Yoshihiro Itoh introduces to QAI the JSW Welding Engineer Mr. Takaaki Maruya and two CWI inspectors Mr. Samfort Kuan and Mr. Kenji Takemi from Intertek Testing Services, Japan. They will be monitor and record the PQR qualification test.

The number of PQR qualification welding test is SJ-2942-WP-2. The PQR qualification tests utilizing the Shielded Metal Arc Welding (SMAW) process were conducted by welder Mr. Tatuyu Naitoh (71-2736) performed in the flat position (1G). The material used for the PQR qualification test specimens was reported by JSW Welding Engineer Mr. Takaaki Maruya as ASTM A148 Gr.620-415 (casting) and ASTM A709-HPS-485WT (plate) both having a wall thickness measurement of 50mm. The weld joint design used butt joint, single-V-groove weld with 20mm x 75mm backing bar. The filler metal used in the test is Hoballoy 9018-M with 5mm diameter electrodes, made by Hobart Brothers, USA. The electrode certification is 38H621. The SMAW welding and parameters have been monitored and recorded by JSW Welding Engineer and two CWI inspectors, also observed by Caltrans QAI. A total of eleven interior filler weld passes (#1 to #11) were completed on this date. The parameters detail check with QAI TL-6032 welding report (12-25-07). The preheat temperature of the test plate is to be held at 30 C overnight for the continuation of the welding at tomorrow. Based on Caltrans QA observation, no discrepancies were noted.

## **Summary of Conversations:**

JSW Welding Engineer Mr. Takaaki Maruya informed QAI that PQR No: SJ-2942-WP-2 will take three days to complete the welding. Tomorrow will start the PQR No: SJ-2942-WP-3.

# WELDING INSPECTION REPORT

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### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Venkatesh Iyer (858)697-6363, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Brasel,Ron	QA Reviewer